

REMARKS/ARGUMENTS

The rejections presented in the Office Action dated January 24, 2008 (hereinafter Office Action) have been considered. Claims 1-28 remain pending in the application. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

The Applicant brings to the Examiner's attention the amendments to Claims 1 and 14-18. The amendments made to the claims are not made for purposes relating to patentability, and are not made in response to prior art or any objections or rejections to the claims. Thus, the Applicant has not intended to narrow, nor has the Applicant narrowed, the scope of any of the claims resulting from the amendment.

Claims 1, 2, 14 and 17-21 are rejected based on 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,130,917 to Monroe (hereinafter "Monroe") in view of U.S. Patent No. 7,191,236 to Simpson-Young et al. (hereinafter "Simpson-Young"). Applicants respectfully traverse the rejection. In order to maintain a § 103(a) rejection, the Examiner must identify a reference, or a combination of references, that teaches or suggests the all of the claimed limitations, or explain why difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art. MPEP § 2141. Applicants submit that the combination of Monroe with Simpson-Young fails to teach or suggest all of the claim limitations, and the Office Action did not explain why differences between the Monroe/Simpson-Young combination and the claimed invention would have been obvious to one of ordinary skill in the art.

Independent Claims 1, 14, 17, and 19 are first considered. Claim 1 describes determining the protocol of a service discovery request received from a client and translating the protocol of the service discovery request into a service discovery protocol used by a service registry. The translated service discovery request is used to discover a service provider of the service requested. Incompatibilities between the client and the service provider, and the service provided to the client by the service provider is translated in response to the detected incompatibilities. Claims 14, 17, and 19 set forth similar features related to translating between service discovery protocols and translating of

services. In the rejections, the Office Action alleges that Monroe describes submitting a service request using a first discovery protocol, and a service translation proxy that translates the first service discovery protocol of the service request into a second service discovery protocol. In particular, column 4, lines 26-50 and 45-60, column 2, lines 27-37, and FIG. 1 of Monroe were relied upon to teach or suggest these particular claimed features.

Applicants disagree that Monroe can be relied to teach any aspect of service discovery. For example, the portions of Monroe cited in the Office Action describe identifying incoming data and a protocol of a destination station, and converting the data format and protocol to appropriate for the destination station. However, this is merely a generic description of protocol conversion, and would not teach or suggest the particular type of protocols used for service discovery, as the term “service discovery” is used in the present Specification, and as this term is known and used in the computer networking arts. A reliance on Monroe’s generically described protocol conversion to show the specifically claimed features both overlooks specific claim language, and exceeds what is reasonably taught by the Monroe reference as a whole.

“Not only must the claimed invention as a whole be evaluated, but so also must the references as a whole, so that their teachings are applied in the context of their significance to a technician at the time--a technician without our knowledge of the solution.”

Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143 (Fed. Cir. 1985). Applicants do not contest that Monroe teaches that “transmission of file source data to a destination system where the source data is incompatible with the source” by selecting “a destination and the protocol compatible with the selected destination.” (Monroe, col. 4, lines 32-52). However, Applicants do not acquiesce that this can be extrapolated to include every protocol known in the art at the time of Applicant’s invention.

The only protocols that may be reasonably construed as being identified in Monroe are those that are used in the context of Monroe’s teachings, in particular protocols for transferring user application data, such as visual/audio data, fax, Word processing documents (Monroe, col. 1, lines 21-34 and 50-54), raster video (Monroe, col. 4, lines 35-39), e-mail (Monroe, col. 5, lines 33-38), and other “original data which is to be

transmitted.”(Monroe, col. 4, lines 26-32). As a result, Monroe only teaches the use of point-to-point data transfer protocols (e.g., facsimile, file transfer, e-mail), and is silent on using any service discovery protocols.

As is well known in the art, service discovery protocols are distinct from data transfer protocols. In particular, service discovery protocols “provide an environment in which a device can automatically discover services, including their properties, in a dynamic fashion” and facilitates browsing, choosing, and providing information (e.g., URL) that allows the service to be used. (Specification, p. 2, lines 4-10 and p. 11, lines 21-23). However, the protocols used to access the service is not part of the service discovery protocol. Service access protocols are negotiated directly between the devices (e.g., protocol descriptor included in the URL). It was neither taught nor implied that Monroe’s system utilizes this type of service discovery, therefore Monroe cannot be relied upon to teach translating between service discovery protocols.

Simpson-Young was not relied upon to teach translating a first service discovery protocol of the service request into a second service discovery protocol of a service provider, nor does Simpson-Young cure these deficiencies of Monroe. Simpson-Young was relied upon to remedy the deficiencies of Monroe. As recognized in the Office Action, Monroe fails to teach translating a service provided into a format that is compatible with the service requestor. Unlike Monroe, Simpson-Young does describe the use of service discovery protocols, such as miniSLP and Jini. However, as applied to Claims 1, 14, 17, and 19, Simpson-Young still fails to teach or suggest translating a service provided into a format that is compatible with capability information associated with the service request, where such service request is received using a first service discovery protocol and the service provider uses a second discovery protocol.

Although Simpson-Young recognizes two different service discovery protocols (miniSLP and Jini) that may be used on a network (Simpson-Young, col. 8, lines 64-67 and FIG. 17), Simpson-Young is as silent to the simultaneous use of and translation between the two protocols on the same network. Further, the Office Action relies on Simpson-Young’s description of “minimum degree of communication” to show the translating of services.

However, at column 12, lines 38-42 and column 13, lines 51-56 of Simpson-Young, it is made clear that this minimum communication is really describing a 'match' between existing devices/services using profiles. Simpson-Young teaches that the incompatibilities between the services may be due to version differences, but nowhere does Simpson-Young teach or suggest translating between incompatible service discovery protocols.

Further, Simpson-Young fails to teach or suggest the discovered services themselves are translated by an intermediary. Although Simpson-Young does discuss the use of services that may act as intermediary between a service and a requestor (e.g., decompressor for printing service between camera and printer as discussed at Simpson-Young col. 18, line 56 to col. 19, line 40) this is not "translation" of the example print service, but is instead the utilization of an external service that resolves a data incompatibility in an ongoing service session. In all other aspects, the camera requestor and printer service in this example are already directly capable of interacting without any service translation. Further, the printer, camera, and decompressor in this scenario utilize the same service discovery protocol, based on descriptions elsewhere of "minimum degree of communication" compatibility of the networks in Simpson-Young. Thus Simpson-Young is further deficient in teaching translating services in the context of translation between a requestor and service provider that further use different service discovery protocols.

Applicants submit, therefore, that the combination of Monroe and Simpson-Young fails to teach or suggest an entity coupled to a service requestor and adapted to translate a first service discovery protocol of the service request into a second service discovery protocol of a service provider, and further to translate the service provided into a format that is compatible with the service requestor. Thus the combination of Monroe and Simpson-Young fails to render Claims 1, 14, 17, and 19 obvious.

Claim 2 depends from independent Claim 1; Claim 18 depends from independent Claim 17; and Claims 20 and 21 depend from independent Claim 19. While Applicant does not acquiesce with any particular rejections to these dependent claims, it is believed that these rejections are now moot in view of the remarks made in connection with independent

Claims 1, 17, and 19. These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these claims from the cited references. “If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious.” M.P.E.P. §2143.03; citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, dependent Claims 2, 18, 20 and 21 are also allowable over the combination of Monroe and Simpson-Young.

Claims 22-27 are rejected based on 35 U.S.C. §103(a) as being unpatentable over Simpson-Young in view of U.S. Publication No. 2003/0048855 by Klaghofer et al. (hereinafter “Klaghofer”). Applicants respectfully traverse the rejections.

Independent Claim 22 sets forth a plurality of home devices adapted to exchange media content in a first format via a first service discovery protocol and a mobile device adapted to exchange media content in a second format via a second service discovery protocol service. A translation proxy is coupled to the plurality of home devices and the at least one mobile device, and the service translation proxy is adapted to translate the media exchanged between the plurality of home devices and the at least one mobile device in response to their respective capabilities via the respective first and second service discovery protocols. Independent Claim 25 sets forth establishing a mobile device and a home device as entities of a wireless home network. The mobile device communicates via a first service discovery protocol and the second device communicates via a second service discovery protocol. Differences in media capabilities between the mobile device and the home device are evaluated via the respective first and second service discovery protocols. Media exchanged between the mobile device and the home device is translated in response to the media capability differences between the mobile device and the home device. The combination of Simpson-Young and Klaghofer at least fails to teach or suggest devices operating on a wireless home network using two different service discovery protocols, nor in service translation between such devices.

As already discussed in greater detail above, Simpson-Young describes the use of different service discovery protocols, but does not teach or suggest that the two protocols

are in use on the same network at the same time, nor that any translation is provided between services or the service discovery protocols. Instead, Simpson-Young describes finding a lowest-common denominator service communication between differing devices, all discovered using the same compatible service discovery protocol. Simpson-Young therefore fails to teach all of the aspects relied upon in the rejections.

In addition, Klaghofer fails to remedy the deficiencies of Simpson-Young. Klaghofer is directed to a mobile radio network (e.g., a GSM network) having facilities for a connection setup that can be effected even with mutually incompatible coding and decoding methods of the end equipment (Klaghofer, 0017 and 0039). As is well known in the art, a mobile services infrastructure is a large scale network for providing wide-area, mobile digital communications. In contrast, Claim 22 is directed to a home network, and Claim 25 recites a mobile device and a home device as entities of a wireless home network. Although the large scale infrastructure of Klaghofer and the proximity networking of Claims 22 and 25 may share some common features (e.g., the use of IP to route packets), the particular features that exemplify embodiments of the claimed service discovery protocols (e.g., the use of IP multicast; Specification p. 22, lines 1-11) are associated with home networks, and not mobile infrastructure.

Peer to peer service discovery is not a typical feature of a large-scale infrastructure such as described in Klaghofer, because services and endpoints are well defined by the infrastructure provider. As a result, codec incompatibility in Klaghofer is not determined in response to service discovery protocols, but is detected based on failed connection attempts (Klaghofer, 0042). Thus, the infrastructure components of Klaghofer are not taught or suggested as being connected to a home network via service discovery, nor does the codec conversion in Klaghofer occur due to differences detected based on service discovery. As such, the combination of Simpson-Young and Klaghofer fails to teach or suggest all of the limitations of independent Claims 22 and 25.

Claim 23 and 24 depend from independent Claim 22 and Claims 26 and 27 depend from independent Claim 25. While Applicant does not acquiesce with any particular rejections to these dependent claims, it is believed that these rejections are now moot in

view of the remarks made in connection with independent Claims 22 and 25. Therefore, dependent Claims 2, 18, 20 and 21 are also allowable over the combination of Simpson-Young and Klaghofer.

Further Applicants note the inapplicability of Klaghofer in the rejections of Claims 23 and 24. In the rejections of Claim 24 and 25, paragraphs 0039-0040 of Klaghofer was cited to respectively show a proximity connection and the use of Bluetooth. However, these portions of Klaghofer recite a mobile subscriber connecting to a base station, which is generally considered to be a long-range wireless connection. In particular, a mobile-subscriber-to-base-station connection could not be reasonably construed as either a proximity connection or as a connection that be accomplished using Bluetooth. For this additional reason, the combination of Simpson-Young and Klaghofer fail to render Claims 23 and 24 obvious.

Claims 3-13, 15 and 16 are rejected based on 35 U.S.C. §103(a) as being unpatentable over Monroe in view of Simpson-Young, and further in view of Klaghofer. The Office Action relies on the combination of Monroe and Simpson-Young as teaching the substance of the claims from which these claims ultimately depend, namely independent Claims 1 and 14. Klaghofer was not relied upon as providing a remedy to the deficiencies of the combination of Monroe and Simpson-Young as it pertains to independent Claims 1 and 14 nor does Klaghofer provide such a remedy. Thus, because none of Monroe, Simpson-Young, and Klaghofer teach at least the recitations of Claims 1 and 14, a combination of the references fails to teach these recitations. Further, a combination of Monroe and Simpson-Young, Klaghofer fails to suggest the invention set forth in Claims 1 and 14, as there is no reference to at least translating between service discovery protocols and translating of services on a home network. While other requisites of establishing *prima facie* obviousness may also be absent, the Applicants respectfully submit that the cited combination of references at least fails to teach or suggest all of the claim limitations. For at least this reason, Claims 3-13, 15 and 16 are not rendered obvious by the combination of the combination of Monroe, Simpson-Young, and Klaghofer, and withdrawal of the rejection is respectfully solicited.

Finally, the Applicant brings to the Examiner's attention the newly added Claim 28. This claim is fully supported by the specification as filed, and no new matter has been added. Applicant respectfully requests entry and allowance of Claim 28.

Authorization is given to charge Deposit Account No. 50-3581 (NOKM.094PA) any necessary fees for this filing. If the Examiner believes it necessary or helpful, the undersigned attorney of record invites the Examiner to contact the undersigned attorney to discuss any issues related to this case.

Respectfully submitted,

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